# Author index to volume 41


Aimar, P., see Chahboun 41 (1992) 235
Ajustron, F., see Chahboun 41 (1992) 235
Amelinckx, S., see Milat 41 (1992) 65
Anton, R., O. Reetz and A.A. Schmidt, Performance of turbomolecular pumps in an extended TEM specimen chamber equipped for in-situ vapour deposition experiments 41 (1992) 303

Balossier, G., see Bonnet 41 (1992) 105
Batson, P.E., D.W. Johnson and J.C.H. Spence, Resolution enhancement by deconvolution using a field emission source in electron energy loss spectroscopy 41 (1992) 137
Beauvillain, J., see Chahboun 41 (1992) 235
Bohonek, J., see Schwarz 41 (1992) 435
Bonnet, N., J. Michel, D. Wagner and G. Balossier, Optimization of digital filters for the detection of trace elements in electron energy loss spectroscopy. I. Theory and simulations 41 (1992) 105
Botton, G. and G. L'Espérance, Effect of accelerating voltage and thickness on an effective signal-to-noise ratio in electron energy loss spectroscopy 41 (1992) 287

Chahboun, A., R. Coratger, F. Ajustron, J. Beauvillain, P. Aimar and V. Sanchez, Comparative study of micro- and ultrafiltration membranes using STM, AFM and SEM techniques 41 (1992) 235
Clark, G.W. and L.L. Kesmodel, A scanning tunneling microscopy study of $TiO_2$(100) surface reconstructions 41 (1992) 77
Coratger, R., see Chahboun 41 (1992) 235
Cowley, J.M., Twenty forms of electron holography 41 (1992) 335
Crewe, A.V., Electron motion in tuned fields. I. The algebra 41 (1992) 269
Crewe, A.V., Electron motion in tuned fields. II. Some applications 41 (1992) 279
Crowther, R.A., see Taylor 41 (1992) 153

Donald, A.M., see Dray 41 (1992) 83
Dorset, D.L., An experimental "primary extinction" correction for electron diffraction intensities: improved phase determination in organic crystal structure analysis 41 (1992) 349

Dray, A.E., R. Rachel, W.O. Saxton, A.M. Donald, R.H. Friend, M.S. Khan and J. Lewis, Beam-damage in a transition-metal-containing poly-yne 41 (1992) 83
Duan, X.F., High-resolution shadow image superimposed on LACBED patterns: a method demonstrated on $Ge_xSi_{1-x}/Si$ superlattice 41 (1992) 249

Edlinger, J., see Müller 41 (1992) 89

Fan, H.F., see Hu 41 (1992) 387
Fanidis, C., D. Van Dyck and J. Van Landuyt, Inelastic scattering of high-energy electrons in a crystal in thermal equilibrium with the environment. I. Theoretical framework 41 (1992) 55
Friend, R.H., see Dray 41 (1992) 83

Gong, H. and F.W. Schapink, Foil-thickness determination from zone-axis CBED patterns and TEM images for a GaAs/AlAs multilayer in plan view 41 (1992) 375
Güntherodt, H.-J., see Schwarz 41 (1992) 435

Haefke, H., see Schwarz 41 (1992) 435
Hashimoto, T., see Taniguchi 41 (1992) 323
Hawkes, P.W., An alternative definition of Gabor focus 41 (1992) 441
Hayashi, T., see Saito 41 (1992) 1
Higgs, A.A., see Weiss 41 (1992) 291
Ho, R., see Wang 41 (1992) 11
Hoffmann, H., see Schuhrke 41 (1992) 429
Hoier, R., see Qian 41 (1992) 147
Hovmöller, S., CRISP: crystallographic image processing on a personal computer 41 (1992) 121
Hu, J.J., F.H. Li and H.F. Fan, Crystal structure determination of $K_2O \cdot 7Nb_2O_5$ by combining high-resolution electron microscopy and electron diffraction 41 (1992) 387
Huang Xiaoxu, see Liu Qing 41 (1992) 317

Ikuta, T., see Taniguchi 41 (1992) 323
Isakozawa, S., see Taniguchi 41 (1992) 323
Isoda, S., see Kurata 41 (1992) 33
Isoda, S., K. Saitoh, T. Ogawa, S. Moriguchi and T. Kobayashi, A comparative study of the modulation transfer function of an imaging plate 41 (1992) 99


Elsevier Science Publishers B.V.

Saijo and M. Shiojiri, Contrast of adsorbed or removed atoms in surface profile images by high- and ultra-high-resolution electron microscopy 41 (1992) 201

Johnson, D.W., see Batson 41 (1992) 137
Jung, Th., see Schwarz 41 (1992) 435

Kamino, T., K. Kuroda and H. Saka, In situ HREM/microanalysis study of reduction of $Al_2O_3$ with palladium 41 (1992) 245
Kelly, T.F., see Turowski 41 (1992) 41
Kesmodel, L.L., see Clark 41 (1992) 77
Khan, M.S., see Dray 41 (1992) 83
Kobayashi, T., see Kurata 41 (1992) 33
Kobayashi, T., see Isoda 41 (1992) 99
Kurata, H., S. Isoda and T. Kobayashi, EELS study of radiation damage in chlorinated Cu–phthalocyanine and poly GeO–phthalocyanine 41 (1992) 33
Kuroda, K., see Kamino 41 (1992) 245

Lehmpfuhl, G., see Smith 41 (1992) 367
Lenc, M., see Müllerová 41 (1992) 399
Lenc, M. and I. Müllerová, Electron optical properties of a cathode lens 41 (1992) 411
L'Espérance, G., see Botton 41 (1992) 287
Lewis, J., see Dray 41 (1992) 83
Li, F.H., see Hu 41 (1992) 387
Liu Qing, Huang Xiaoxu and Yao Mei, New method for determining grain boundary parameters 41 (1992) 317

Mändl, M., see Schuhrke 41 (1992) 429
Marks, L.D. and J.P. Zhang, Is there an electron wind? 41 (1992) 419
Matteucci, G., F.F. Medina and G. Pozzi, Electron-optical analysis of the electrostatic Aharonov–Bohm effect 41 (1992) 255
Medina, F.F., see Matteucci 41 (1992) 255
Mellema, J.E., Book review 41 (1992) 253
Meyer, E., see Schwarz 41 (1992) 435
Michel, J., see Bonnet 41 (1992) 105
Migliori, A. and G. Pozzi, Computer simulations of electron holographic contour maps of superconducting flux lines 41 (1992) 169
Milat, O., G. Van Tendeloo and S. Amelinckx, Selective imaging of the "substructures" in incommensurately modulated intergrowth crystal structures 41 (1992) 65
Möllenstedt, G., see Zhou 41 (1992) 359
Moriguchi, S., see Isoda 41 (1992) 99
Müller, T., J. Edlinger and H.K. Pulker, Heat shock fracturing and replication for the electron microscopy of thin films 41 (1992) 89

[illegible] probes for low-voltage scanning electron microscopy 41 (1992) 399
Müllerová, I., see Lenc 41 (1992) 411

Norian, K.H., see Rieberer 41 (1992) 225

Ogawa, T., see Isoda 41 (1992) 99
Orloff, J., see Sato 41 (1992) 181

Pozzi, G., see Migliori 41 (1992) 169
Pozzi, G., see Matteucci 41 (1992) 255
Pulker, H.K., see Müller 41 (1992) 89

Qian, W., B. Tötdal, R. Hoier and J.C.H. Spence, Channelling effects on oxygen-characteristic X-ray emission and their use as reference sites for ALCHEMI 41 (1992) 147

Rachel, R., see Dray 41 (1992) 83
Reetz, O., see Anton 41 (1992) 303
Rez, P., Chemical lattice imaging: a pedantic note 41 (1992) 115
Rez, P., see Weiss 41 (1992) 291
Rieberer, S. and K.H. Norian, Analytical electron microscopy of Nafion ion exchange membranes 41 (1992) 225

Saijo, H., see Isshiki 41 (1992) 201
Saito, Y., N. Suzuki, H. Shinohara, T. Hayashi and M. Tomita, Transmission electron microscopy and electron energy loss spectroscopy of $C_{60}$ fullerite 41 (1992) 1
Saitoh, K., see Isoda 41 (1992) 99
Saka, H., see Kamino 41 (1992) 245
Sanchez, V., see Chahboun 41 (1992) 235
Sato, M. and J. Orloff, A new concept of theoretical resolution of an optical system, comparison with experiment and optimum condition for a point source 41 (1992) 181
Saxton, W.O., see Dray 41 (1992) 83
Schapink, F.W., see Gong 41 (1992) 375
Schmidt, A.A., see Anton 41 (1992) 303
Schmitz, A., see Van Capellen 41 (1992) 193
Schuhrke, T., M. Mändl, J. Zweck and H. Hoffmann, Investigation of surface amorphization of silicon wafers during ion-milling 41 (1992) 429
Schwarz, U.D., H. Haefke, Th. Jung, E. Meyer, H.-J. Güntherodt, R. Steiger and J. Bohonek, Plate-like microcrystals of silver bromide investigated by scanning force microscopy 41 (1992) 435
Shao, Z., see Wang 41 (1992) 11
Shimizu, R., see Taniguchi 41 (1992) 323
Shinohara, H., see Saito 41 (1992) 1
Shiojiri, M., see Isshiki 41 (1992) 201

A comparison between experimental and calculated convergent beam RHEED patterns from the Pt(111) surface 41 (1992) 367
Somlyo, A.P., see Wang 41 (1992) 11
Spellward, P., see Vine 41 (1992) 423
Spence, J.C.H., see Batson 41 (1992) 137
Spence, J.C.H., see Qian 41 (1992) 147
Steeds, J.W., see Vine 41 (1992) 423
Steiger, R., see Schwarz 41 (1992) 435
Suzuki, N., see Saito 41 (1992) 1

Takai, Y., see Taniguchi 41 (1992) 323
Taniguchi, Y., Y. Takai, R. Shimizu, T. Ikuta, S. Isakozawa and T. Hashimoto, Spherical-aberration-free observation of TEM images by defocus-modulation image processing 41 (1992) 323
Taylor, K.A. and R.A. Crowther, 3D reconstruction from the Fourier transform of a single superlattice image of an oblique section 41 (1992) 153
Tomita, M., see Saito 41 (1992) 1
Tötdal, B., see Qian 41 (1992) 147
Toyoshima, M., see Isshiki 41 (1992) 201
Tsujikura, M., see Isshiki 41 (1992) 201
Turowski, M.A. and T.F. Kelly, Profiling of the dielectric function across $Al/SiO_2/Si$ heterostructures with electron energy loss spectroscopy 41 (1992) 41

Uchida, Y., see Smith 41 (1992) 367

Van Capellen, E. and A. Schmitz, A simple spot-size versus pixel-size criterion for X-ray microanalysis of thin foils 41 (1992) 193
Van Landuyt, J., see Famulis 41 (1992) 35
Van Tendeloo, G., see Milat 41 (1992) 65
Vincent, R., see Vine 41 (1992) 423
Vine, W.J., R. Vincent, P. Spellward and J.W. Steeds, Observation of phase contrast in convergent-beam electron diffraction patterns 41 (1992) 423

Wagner, D., see Bonnet 41 (1992) 105
Wang, Y.-Y., R. Ho, Z. Shao and A.P. Somlyo, Optimization of quantitative electron energy loss spectroscopy in the low loss region: phosphorus L-edge 41 (1992) 11
Weiss, J.K., P. Rez and A.A. Higgs, A computer system for imaging and spectroscopy in analytical electron microscopy 41 (1992) 291

Yao Mei, see Liu Qing 41 (1992) 317

Zhang, J.P., see Marks 41 (1992) 419
Zhou, F. and G. Möllenstedt, Forbidden reflections Si (200) and (600) in CBED and their computer simulation 41 (1992) 359
Zuo, J.M., Automated lattice parameter measurement from HOLZ lines and their use for the measurement of oxygen content in $YBa_2Cu_3O_{7-\delta}$ from nanometer-sized region 41 (1992) 211
Zweck, J., see Schuhrke 41 (1992) 429

# Subject index to volume 41


**Analytical microscopy**

A simple spot-size versus pixel-size criterion for X-ray microanalysis of thin foils, *Van Capellen and Schmitz* 41 (1992) 193

Analytical electron microscopy of Nafion ion exchange membranes, *Rieberer and Norian* 41 (1992) 225

In situ HREM/microanalysis study of reduction of $Al_2O_3$ with palladium, *Kamino, Kuroda and Saka* 41 (1992) 245

**Cross sections**

Inelastic scattering of high-energy electrons in a crystal in thermal equilibrium with the environment. I. Theoretical framework, *Fanidis, Van Dyck and Van Landuyt* 41 (1992) 55

**Diffraction and optical diffraction**

Automated lattice parameter measurement from HOLZ lines and their use for the measurement of oxygen content in $YBa_2Cu_3O_{7-\delta}$ from nanometer-sized region, *Zuo* 41 (1992) 211

High-resolution shadow image superimposed on LACBED patterns: a method demonstrated on $Ge_xSi_{1-x}/Si$ superlattice, *Duan* 41 (1992) 249

An experimental "primary extinction" correction for electron diffraction intensities: improved phase determination in organic crystal structure analysis, *Dorset* 41 (1992) 349

Forbidden reflections Si (200) and (600) in CBED and their computer simulation, *Zhou and Möllenstedt* 41 (1992) 359

Foil-thickness determination from zone-axis CBED patterns and TEM images for a GaAs/AlAs multilayer in plan view, *Gong and Schapink* 41 (1992) 375

Crystal structure determination of $K_2O \cdot 7Nb_2O_5$ by combining high-resolution electron microscopy and electron diffraction, *Hu, Li and Fan* 41 (1992) 387

Is there an electron wind?, *Marks and Zhang* 41 (1992) 419

Observation of phase contrast in convergent-beam electron diffraction patterns, *Vine, Vincent, Spellward and Steeds* 41 (1992) 423

**Electron energy loss spectroscopy**

Transmission electron microscopy and electron energy loss spectroscopy of $C_{60}$ fullerite, *Saito, Suzuki, Shinohara, Hayashi and Tomita* 41 (1992) 1

Optimization of quantitative electron energy loss spectroscopy in the low loss region: phosphorus L-edge, *Wang, Ho, Shao and Somlyo* 41 (1992) 11

EELS study of radiation damage in chlorinated Cu–phthalocyanine and poly GeO–phthalocyanine, *Kurata, Isoda and Kobayashi* 41 (1992) 33

Profiling of the dielectric function across $Al/SiO_2/Si$ heterostructures with electron energy loss spectroscopy, *Turowski and Kelly* 41 (1992) 41

Inelastic scattering of high-energy electrons in a crystal in thermal equilibrium with the environment. I. Theoretical framework, *Fanidis, Van Dyck and Van Landuyt* 41 (1992) 55

Optimization of digital filters for the detection of trace elements in electron energy loss spectroscopy. I. Theory and simulations, *Bonnet, Michel, Wagner and Balossier* 41 (1992) 105

Chemical lattice imaging: a pedantic note, *Rez* 41 (1992) 115

Resolution enhancement by deconvolution using a field emission source in electron energy loss spectroscopy, *Batson, Johnson and Spence* 41 (1992) 137

Channelling effects on oxygen-characteristic X-ray emission and their use as reference sites for ALCHEMI, *Qian, Tötdal, Hoier and Spence* 41 (1992) 147

Effect of accelerating voltage and thickness on an effective signal-to-noise ratio in electron energy loss spectroscopy, *Botton and L'Espérance* 41 (1992) 287

**High resolution**

Contrast of adsorbed or removed atoms in surface profile images by high- and ultra-high-resolution electron microscopy, *Isshiki, Toyoshima, Tsujikura, Saijo and Shiojiri* 41 (1992) 201


Elsevier Science Publishers B.V.

duction of $Al_2O_3$ with palladium, *Kamino, Kuroda and Saka* 41 (1992) 245
High-resolution shadow image superimposed on LACBED patterns: a method demonstrated on $Ge_xSi_{1-x}/Si$ superlattice, *Duan* 41 (1992) 249
Crystal structure determination of $K_2O \cdot 7Nb_2O_5$ by combining high-resolution electron microscopy and electron diffraction, *Hu, Li and Fan* 41 (1992) 387

**Image processing, 3D reconstruction**
CRISP: crystallographic image processing on a personal computer, *Hovmöller* 41 (1992) 121
3D reconstruction from the Fourier transform of a single superlattice image of an oblique section, *Taylor and Crowther* 41 (1992) 153
Computer simulations of electron holographic contour maps of superconducting flux lines, *Migliori and Pozzi* 41 (1992) 169
A computer system for imaging and spectroscopy in analytical electron microscopy, *Weiss, Rez and Higgs* 41 (1992) 291
Spherical-aberration-free observation of TEM images by defocus-modulation image processing, *Taniguchi, Takai, Shimizu, Ikuta, Isakozawa and Hashimoto* 41 (1992) 323
Forbidden reflections Si (200) and (600) in CBED and their computer simulation, *Zhou and Möllenstedt* 41 (1992) 359

**Imaging**
Selective imaging of the "substructures" in incommensurately modulated intergrowth crystal structures, *Milat, Van Tendeloo and Amelinckx* 41 (1992) 65
A comparative study of the modulation transfer function of an imaging plate, *Isoda, Saitoh, Ogawa, Moriguchi and Kobayashi* 41 (1992) 99
Chemical lattice imaging: a pedantic note, *Rez* 41 (1992) 115
Electron-optical analysis of the electrostatic Aharonov–Bohm effect, *Matteucci, Medina and Pozzi* 41 (1992) 255

**Instrumentation**
Performance of turbomolecular pumps in an extended TEM specimen chamber equipped for in-situ vapour deposition experiments, *Anton, Reetz and Schmidt* 41 (1992) 303
Electron optical properties of a cathode lens, *Lenc and Müllerová* 41 (1992) 411

**photoemission microscopy**
Some approaches to low-voltage scanning electron microscopy, *Müllerová and Lenc* 41 (1992) 399

**Methods and techniques**
Chemical lattice imaging: a pedantic note, *Rez* 41 (1992) 115
Resolution enhancement by deconvolution using a field emission source in electron energy loss spectroscopy, *Batson, Johnson and Spence* 41 (1992) 137
Channelling effects on oxygen-characteristic X-ray emission and their use as reference sites for ALCHEMI, *Qian, Tötdal, Hoier and Spence* 41 (1992) 147
A simple spot-size versus pixel-size criterion for X-ray microanalysis of thin foils, *Van Capellen and Schmitz* 41 (1992) 193
Automated lattice parameter measurement from HOLZ lines and their use for the measurement of oxygen content in $YBa_2Cu_3O_{7-\delta}$ from nanometer-sized region, *Zuo* 41 (1992) 211
Comparative study of micro- and ultrafiltration membranes using STM, AFM and SEM techniques, *Chahboun, Coratger, Ajustron, Beauvillain, Aimar and Sanchez* 41 (1992) 235
High-resolution shadow image superimposed on LACBED patterns: a method demonstrated on $Ge_xSi_{1-x}/Si$ superlattice, *Duan* 41 (1992) 249
Effect of accelerating voltage and thickness on an effective signal-to-noise ratio in electron energy loss spectroscopy, *Botton and L'Espérance* 41 (1992) 287
New method for determining grain boundary parameters, *Liu Qing, Huang Xiaoxu and Yao Mei* 41 (1992) 317
Crystal structure determination of $K_2O \cdot 7Nb_2O_5$ by combining high-resolution electron microscopy and electron diffraction, *Hu, Li and Fan* 41 (1992) 387
Investigation of surface amorphization of silicon wafers during ion-milling, *Schuhrke, Mändl, Zweck and Hoffmann* 41 (1992) 429

**Particle optics, experimental**
A new concept of theoretical resolution of an optical system, comparison with experiment and optimum condition for a point source, *Sato and Orloff* 41 (1992) 181
Electron-optical analysis of the electrostatic Aharonov–Bohm effect, *Matteucci, Medina and Pozzi* 41 (1992) 255
Electron motion in tuned fields. II. Some applications, *Crewe* 41 (1992) 279

A new concept of theoretical resolution of an optical system, comparison with experiment and optimum condition for a point source, *Sato and Orloff* 41 (1992) 181
Electron-optical analysis of the electrostatic Aharonov–Bohm effect, *Matteucci, Medina and Pozzi* 41 (1992) 255
Electron motion in tuned fields. I. The algebra, *Crewe* 41 (1992) 269
Electron motion in tuned fields. II. Some applications, *Crewe* 41 (1992) 279
Twenty forms of electron holography, *Cowley* 41 (1992) 335
An alternative definition of Gabor focus, *Hawkes* 41 (1992) 441

**Radiation damage and contamination**
EELS study of radiation damage in chlorinated Cu–phthalocyanine and poly GeO–phthalocyanine, *Kurata, Isoda and Kobayashi* 41 (1992) 33
Beam-damage in a transition-metal-containing poly-yne, *Dray, Rachel, Saxton, Donald, Friend, Khan and Lewis* 41 (1992) 83

**Reflection electron microscopy, reflection high-energy electron diffraction**
A comparison between experimental and calculated convergent beam RHEED patterns from the Pt(111) surface, *Smith, Lehmpfuhl and Uchida* 41 (1992) 367

**Scanning electron microscopy**
Comparative study of micro- and ultrafiltration membranes using STM, AFM and SEM techniques, *Chahboun, Coratger, Ajustron, Beauvillain, Aimar and Sanchez* 41 (1992) 235
Some approaches to low-voltage scanning electron microscopy, *Müllerová and Lenc* 41 (1992) 399

**Scanning tunneling microscopy**
A scanning tunneling microscopy study of $TiO_2$(100) surface reconstructions, *Clark and Kesmodel* 41 (1992) 77
tion membranes using STM, AFM and SEM techniques, *Chahboun, Coratger, Ajustron, Beauvillain, Aimar and Sanchez* 41 (1992) 235
Plate-like microcrystals of silver bromide investigated by scanning force microscopy, *Schwarz, Haefke, Jung, Meyer, Güntherodt, Steiger and Bohonek* 41 (1992) 435

**Specimen preparation**
Heat shock fracturing and replication for the electron microscopy of thin films, *Müller, Edlinger and Pulker* 41 (1992) 89

**Spectrometers, auxiliary apparatus**
A computer system for imaging and spectroscopy in analytical electron microscopy, *Weiss, Rez and Higgs* 41 (1992) 291
Performance of turbomolecular pumps in an extended TEM specimen chamber equipped for in-situ vapour deposition experiments, *Anton, Reetz and Schmidt* 41 (1992) 303

**Surfaces, clusters, interfaces and particles**
Profiling of the dielectric function across $Al/SiO_2/Si$ heterostructures with electron energy loss spectroscopy, *Turowski and Kelly* 41 (1992) 41
Selective imaging of the "substructures" in incommensurately modulated intergrowth crystal structures, *Milat, Van Tendeloo and Amelinckx* 41 (1992) 65
Contrast of adsorbed or removed atoms in surface profile images by high- and ultra-high-resolution electron microscopy, *Isshiki, Toyoshima, Tsujikura, Saijo and Shiojiri* 41 (1992) 201
New method for determining grain boundary parameters, *Liu Qing, Huang Xiaoxu and Yao Mei* 41 (1992) 317

**Abstracts / Announcements / Book reviews / Comments / Editorials / Reports**
Book review, *Mellema* 41 (1992) 253